

Historian James Wm Carlie

was an invalid for 26 yrs of his life & wrote a day by day History of Hager Valley between about 1923-^{or 1927} & 1946.

The history was preserved by Orel Carlie Kuhn & finally given to Wallowa Historical Society in charge of Craig Fuller.

James Wm Carlie had a serious injury in 1916. He started recording history in a personal diary in 1923 & continued thru 1945. His dau. wrote for him thru 1946 when he died.

James Wm Carlie built the home at 284 West Center & lived there & his wife & family his life long. Orel, his dau. said she thinks the west part was originally log.

Ref 1. WPA MN p 290-1

2. Orel Carlie Kuhn - 8-7-89

100
100
100

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100

Wheritt was here alone
in 1914 ~~when~~^{before} James Wm
Carlile was injured.

No Hospital.

Later, Dr. Ray Hatch came
to Heber to practice medicine
& so in 1916 when James
Wm Carlile was seriously
injured, Drs Wheritt & Hatch
were only 2 doctors in Heber

VOLTMETER is an instrument that measures the *voltage* (difference in potential) between two points of an electric current. Most commercial voltmeters are galvanometers connected in series with a high resistance. They have scales that read in volts. A typical direct-current voltmeter has a magnet shaped like a horseshoe. To each *pole* (end) of the magnet is attached a semi-circular piece of soft iron that also becomes magnetized. These pieces of soft iron direct the magnetic field toward a small iron cylinder placed between the poles of the magnet. Since soft iron becomes highly magnetized, this cylinder concentrates the magnetic field.

Surrounding the cylinder is a coil of thin copper wire wound on a light, rectangular frame. This coil is the movable coil through which the electric current flows. Each end of the wire coil is connected to a small spiral spring. As the coil moves, a needle attached to the coil also moves. This needle moves across a dial and indicates the reading in volts. Another coil of very high resistance, up to several thousand ohms, is connected in series with the movable coil.

When the voltmeter is not in use, the frame does not move and the needle reads "zero." When a current passes through the movable coil, a magnetic field is set up around the coil. As a result, the magnetic field of the horseshoe magnet acts on the current-carrying wires of the coil to produce a force on the coil. This force causes the coil to turn. The springs oppose the motion of the coil and are adjusted so that the position of the needle indicates the correct voltage. In taking voltage readings, a voltmeter is always placed across the part of the circuit to be measured.

E. R. WHITEHEAD

See also **GALVANOMETER**; **POTENTIOMETER**; **VOLT**.

VOLUME of a body is the amount of space it occupies

VON BRAUN,

VOLUNTEERS OF AMERICA is a welfare organization which provides spiritual services to the needy. It has more than 1,000 program-centers throughout the United States. Its services include missions, Sunday Schools, groups, and spiritual counseling and guidance.

The organization operates maternity homes, placement services, summer camps, homes for the aged, nursing homes and special care, habilitation services for the handicapped, working girls, day nurseries, and the homeless. It sponsors joy and the elderly; and has help in many communities. The V.O.A. sells household goods for the needy and parolees and their families.

Ballington Booth and his wife, Anna Booth, founded the Volunteers in New York in 1896 (see **Booth** [family]). The organization is partly military. Officers wear uniforms and insignia. Headquarters are at 340 W. 85th Street, New York 10024.

Critically reviewed by the VOLUNTEERS OF AMERICA

VOLVOX. See **PROTOZOAN** (Flagellates).

VOMITING, *Vomiting*, is the forcing out of the contents of the stomach and intestines through the mouth. In digestion, the muscles of the stomach and small intestine contract and push the contents down through the alimentary canal. These muscles reverse their contractions afterward. A person usually has a feeling of nausea before vomiting. Vomiting is controlled by the nervous system (see **Brain** [The Medulla, Olfactory, and Cranial Nerves]).